## **ABSTRACT OF THE DISCLOSURE**

The control unit controls mixed light illumination produced by a number of lighting units, especially for controlling LED lighting units used in microscopy. The lighting units are connected with the control unit and receive control signals from it. Respective parts of at least two of the lighting units are simultaneously controlled according to user commands, for example for interval control to simulate a moving light source or synchronized light sources. The user commands can be directly input by function keys and/or a foot switch and/or stored in a memory device of the control unit. Alternatively or in addition, the control unit can receive command statements from an external computer connected to an interface of the control unit or control signals from an external camera.

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